AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0026] with the following amended paragraph, per the Examiner's comments during the Office Interview:

[0026] According to the present invention, the orienter assembly **10** of the present invention is positioned in front of the drilling motor assembly **20**, just behind the rotating drill bit **130**. The orienter assembly **10** includes a ~~rotatable~~ housing **30** which may be divided into an upper section **32** and a lower rotatable section **34**. Finally, at the distal end **102** of the drilling tool assembly **100** is the rotating drill bit **130**. It is the rotating drill bit **130** which actually cuts through the soils and the rock to form the subterranean borehole **B**. Linear force is transmitted to the drilling tool assembly **100** by the force placed on the coiled tubing **110** by the injector assembly **140**. The linear force moves the rotating drill bit **130** forward as the rotating drill bit **130** cuts through the soil and rock at the drill face at the end of the borehole.

Please replace paragraph [0027] with the following amended paragraph, per the Examiner's comments:

[0027] In Figure 2 the lower rotatable section ~~housing~~ ~~30~~ 34 is held fast; that is, it does not rotate. Accordingly, the fixed bend **36** in the lower rotatable section ~~housing~~ ~~30~~ 34 of the orienter **10** causes the rotating drill bit **130** to form an arcuate segment of the borehole B. As shown in exaggerated manner in Figure 2, if the fixed bend **36** is in a substantially vertical plane, the drilling tool assembly **100** will form an arcuate

segment of the borehole **B** which tracks upwardly to the earth's surface **S**, thereby allowing for removal of the drilling tool assembly **100** from the end **115** of the coiled tubing **110** after the drilling tool assembly **100** exits the borehole.

Please replace paragraph [0028] with the following amended paragraph, per the Examiner's comments:

[0028] In contrast, the lower rotatable section ~~housing~~ ~~30~~ **34**, shown in Figure 3 is not held fast or in a fixed position; instead it is allowed to turn. The turning of the lower rotatable section ~~housing~~ ~~30~~ **34** , to include both the ~~upper section 32, the~~ fixed bend **36**, and the lower ~~portion~~ section **34**, with respect to the non-rotary housing **22** around the drilling motor **20**, enables the rotating drill bit **130** to cut a straight line segment of a large borehole. The transfer of torque from the drive shaft **24** portion of the drilling motor assembly **20** to the ~~rotatable housing 30~~ upper section **32** causes the entire lower rotatable section ~~housing~~ ~~30~~ **34** to turn as shown in Figure 3.

Please replace paragraph [0029] with the following amended paragraph, per the Examiner's comments:

[0029] In a macro sense, the housing **30** of the disclosed orienter **10** looks like an extension of the non-rotating housing **22** which surrounds the drill motor **20**. However, housing **30** of the orienter **10** is separate from housing **22**. This separation allows the external, lower rotatable section ~~housing~~ ~~30~~ **34** with a fixed bend **36** to rotate constantly at a minimal rpm while the drill motor assembly **20** causes the rotating drill bit **130** to move straight ahead with an oscillating action and thereby form a

straight segment of the borehole **B**, as shown in Figure 3. Disengagement of the mechanical connection between the ~~external~~, ~~rotatable~~ ~~housing 30~~ upper section **32** from the drive shaft **24** portion of the drill motor assembly **20** and the indexing of the lower rotatable section ~~housing~~ ~~30~~ **34** to the desired clock face position has the effect of placing the rotating drill bit **130** in a directional or steering mode as shown in Figure 2 because the fixed bend **36** in the external, lower rotatable section ~~housing~~ ~~30~~ **34** does not rotate. However, because the drive shaft **24** of the drilling motor **20** is still connected to the rotating drill bit **130** by a universal joint or flexible coupling **26**, the rotating drill bit continues to turn.

Please replace paragraph [0030] with the following amended paragraph, per the Examiner's comments:

[0030] As shown in Figure 4, the necessary drive force or rotational torque which causes the external, lower rotatable section ~~housing~~ ~~30~~ **34** with a fixed bend **36** to turn is obtained from the drive shaft ~~22~~ **24** of the drill motor assembly **20**. In the preferred embodiment, connection of the external, lower rotatable section ~~housing~~ ~~30~~ **34** with a fixed bend **36** to the drive shaft **24** of the drill motor **20** is accomplished by the use of a mechanical clutch mechanism **40**.

Please replace paragraph [0032] with the following amended paragraph, per the Examiner's comments:

[0032] In the preferred embodiment, an internal gear assembly **60** within the ~~rotatable housing 34~~ upper section **32** is used. The internal gear assembly **60** includes a plurality of externally toothed spur gears **62**. The rotation of the spur gears **62** causes rotation of the external housing **30** by engagement of a large-internally toothed ring gear **64** with the rotating spur gears **62**. The gear ratio between the spur gears **62** and the ring gear **64** provides for a reduction in speed and an increase in torque. The end result is a circular movement of the ~~housing~~ lower rotatable section **34** including the fixed bend **36** and the rotating drill bit **130** to drill a straight borehole through soil and rocks. Those of ordinary skill in the art will understand that while a simple speed reduction gear train has been shown in the preferred embodiment, other speed reducing or torque mechanisms may be used without departing from the scope of the invention, to include but not limited to a hydraulic drive or a helical actuator.

Please replace paragraph [0033] with the following amended paragraph, per the Examiner's comments:

[0033] To assure proper clock face position of the lower rotatable section ~~housing 30~~ **34** with respect to the non-rotating housing **22** surrounding the motor assembly **20** or torque transfer, a set of radially spaced contact points or similar radial position indicating systems, well known to those of ordinary skill in the art, may be used to provide a signal representative of the clock position of the lower rotatable section ~~housing 30~~ **34**. As the lower rotatable section ~~housing 30~~ **34** is selectively rotated or indexed to a desired orientation by the motor **20**, a single contact closes a circuit at a location representative of the clock face position of the lower rotatable

section ~~housing~~ ~~30~~ **34**. The signal is received at the surface using a wireless transmission or a wire line. Knowledge of the clock face position of the lower rotatable section ~~housing~~ ~~30~~ **34**enables the operator to assure that the fixed bend portion **36** of the orienter **10** is properly rotated or indexed to the desired orientation to create an arcuate segment of the borehole B which follows along a predetermined path.